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ARMAMENTS/AMMUNITION PLANTS HEAR HSIANGT'AN, CHINA

Two armaments/ammunition plants are located near Hsiangt'an in Hunan Province, China. These are the Hsiang-Hsiang Explosives Complex, sometimes referred to as the Hsiangt'an Probable Plant Number 282, and an armaments plant, the Hsiangt'an Probable Plant Number 627. Approximate geographic coordinates for the two plants are:

Hsiang-Hsiang Explosives Complex 27 50N - 112 40E Hsiangt'an Probable Plant Number 627 27 52N - 112 54E

There does not appear to be any identifiable association between the two plants, although both are situated near the railroad as well as the road between the cities of Hsiang-Hsiang and Hsiangt'an, the distance between the two plants is approximately 13 nautical miles.

A. Hsiang-Hsiang Explosives Complex

- 1. This complex is 9 nautical miles NE of Hsiang-Hsiang and 13 nautical miles WSW of the larger city, Hsiangt'an. It is situated near a small stream which flows into the Lien Shui River and is both road and rail served. The explosives complex can be broken down into three major, functionally different, and geographically separate areas: a Factory Area, an Explosives Processing Area, and an Explosives Storage and Loading Area. These areas are shown on Figure 3.
- 2. A general description of the probable function of each major area together with identification and analysis of the various sections within that area follow:
 - a. Factory Area This area (Figure 1) is located in the northern part of the complex and measures approximately 2,500 feet by 2,000 feet. It is probably producing munitions hardware; this estimate is based upon the types of industrial buildings present, the presence of a number of revetted magazines and an explosives handling facility within the area, and the area's close association by road and rail with an Explosive Processing Area (section b) and by road with an Explosives Storage and Loading Area (section c).

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	The annotations on Figure 4 correspond to the following
ussi	on of various sections and facilities present in this area:
•	
(1)	
(2)	
(3)	Large building in an early stage of construction
(4)	Factory area with two large fabrication type buildings, several probable forge/foundry buildings, and a number
	of fabrication and assembly baildings, machine shops,
	and warehousing
(5)	Possible railcar loading and unloading facility
(6)	
	construction
(7)	Rail spur - four rail cars were observed in 25X1D
(8)	
	consisting of: (a) a flat-roofed building with two rows
	of five roof ventilators or short stacks, an adjacent, tall stack which may be needed to exhaust fumes and a
	probable pipeline extending from the building across a
•	small stream where it apparently terminates (b) probable
	boilerhouse with an adjacent high bay section, and an
	adjacent, tall stack (c) a tall structure with a gable
	roof covering possible silos and which appears to be .
	connected to the preceeding building (d) coal stored in
(0)	the open area to the east and south
(9) (10)	
(10)	passageways, for the handling and/or loading of explosives:
	(a) the western group consists of four interconnected
	buildings; the northernmost building is connected to one
	of the magazines, while the southernmost building is
	divided by a blast wall into two sections (b) the
	eastern group consists of six interconnected buildings; four
(22)	of these buildings are parallel, another is earth revetted
(11)	Large secured area containing two revetments probably used for the burning of explosive waste materials and/or the
	testing of explosives; the area also contains a number of
	small buildings
(12)	Secured special storage facility consisting of two similar
	buildings placed back to back: each building is earth
	covered except for one side which is open and road served.
	On the open side of the building facing south, two entrances
	can be seen. A row of eight stacks or vents protrudes thru the earth covered roof of each building
(13)	
(+)/	served by a loop road; on at least five
	vehicles were observed within the motor pool

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- (14) Secured storage facility with three large and three small warehouse type buildings
- b. Explosives Processing Area This area (Figure 5) is located about one nautical mile south of the Factory Area and measures approximately 2,100 feet by 1,900 feet. The presence of a boilerhouse, two steamlines, process buildings with blast walls, covered passageways, and well spaced, revetted storage buildings in this area point toward explosives processing as taking place. The features of some of the process buildings indicate that explosives fabrication such as mixing, casting, machining, pressing, or extrusion could be carried out here; in addition, some explosives loading may occur. Explosives manufacture, however, does not seem to be indicated at these facilities.

.The annotations on Figure 5 correspond to the following discussion of various sections and facilities present in this area:

- Separately secured area with a boilerhouse (a) and a number of support/storage buildings: a steamline (b) connects a small building (possible valve house) adjacent to the boilerhouse with the process building (Annotation 2) immediately south of the boilerhouse; in addition, a probable steamline (c) runs southeast from the boilerhouse to a road within the Processing Area where it apparently terminates
- (2) Process building

(3) Three process/storage buildings .

(4) Two process buildings, interconnected by a covered passageway: the western building is gable-roofed with possible roof ventilators while the eastern building is flat-roofed and possibly has blast walls on its eastern and western ends; several lightning arrestors are situated around these buildings

(5) Rail spur connecting the Processing Area with the Factory
Area; on ______ one railcar was observed on this spur
within the Processing Area

(6) Two magazines, earth revetted; the western magazine is relatively large in comparison with other magazines in the Processing Area and has blast walls near the middle and on the eastern end

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Explosives fabricating and loading area consisting (7)of three buildings (labeled d, e, and f), interconnected by covered passageways: (a) building d appears to be subdivided by blast walls into four sections; one of these sections is further subdivided by blast walls into eleven cells which could contain explosive fabricating equipment such as pellet presses; also, on the northern side of the two easternmost sections, road served additions have been built which are possibly used for loading/unloading and storage of materiel: (b) building e is flat-roofed, heavily earth revetted and has blast walls dividing it into a small western section with a short, possible stack and a larger eastern section with two small probable roof ventilators; this building is probably used for explosives loading: (c) building f is separated into three sections by blast walls and is flat-roofed; on the northwest corner of the building, blast walls form an addition consisting of two adjacent, rectangular "cells" which are partially roofed - the function of these "cells" is not known: (d) lightning arrestors are situated around buildings d and e, and possibly f

(8) Magazine with a drive-thru earth revetment, possibly associated with building d

- (9) Six possible mixing/rest houses, aligned and interconnected by means of a covered passageway, which also connects them to a process building (Annotation 10); each mixing/rest house has two possible roof ventilators and the northernmost three have earth revetments south of them
- (10) Large process building, interconnected by a covered passageway with the six possible mixing/rest houses and separated by blast walls into three sections; the eastern and western sections are connected to the covered passageway; in addition, the western section has six possible roof ventilators. The lighter tone of the roof of this building and of the interconnecting covered passageway, in comparison with many of the other structures in the processing area, suggests that they were constructed more recently than some of the other structures. In addition, the lack of well-laid-out gardens or land under cultivation around the process building tends to support this supposition.
- (11) Magazine, earth revetted

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**	(12) Process building with blast walls on eithe flat roof with a raised section and a poss ventilator, and lightning arrestors situatend; on the northwest and southwest corner form additions consisting of rectangular to those described for building f, but with roof cover	ible roof ed at either s blast walls cells" similar
• •	(13) Large process building, subdivided into the blast walls: (a) the westernmost section he roof ventilators and a possible escape chucenter section has nine possible roof ventiprobable escape chute (c) the easternmost smaller and not quite as high as the other and has a short, possible stack and four poventilators of a type different than those other buildings in the processing area; a south side of this section leads down into section. The slightly lighter tone in the northwest of this process building and the building (Annotation 12) than in other surrouggests that either one or both buildings smoke or dust	as four possible te (b) the ilators and a section is two sections, ossible roof found on pipeline on the the center area to the adjacent
	(14) Three magazines, earth revetted	
	(15) Railcar loading and unloading area	•
	c. Explosives Storage and Loading Area - This a on Figure 3, is located approximately three quarters east of the Factory Area and one half of a mile north Processing Area. Roads from both of these areas lead Explosives Storage and Loading Area which is at least secured by a fence. The area is irregular in shape a approximately 4,000 by 3,600 feet. None of the build area are revetted; they are well spaced, however, and	of a mile south neast of the into the partially and measures lings in the natural
	terrain provides blast protection. In all, twenty the are located in the area:	ree buildings .
	 A large warehouse type building with two log platforms and a parking area, located adjact road leading to the Factory Area A large possible explosives loading/handling eleven rectangular roof vents and a turnared located near the intersection of the roads the other two areas Four probable support buildings, located near to the area from the Factory Area Four small magazines in the southwest corne Of the remaining buildings, at least eight for explosives storage 	gent to the graph building with and loop, leading to ar the entrance r of the area

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and and and and and	3. Construction activity and changes at the explosives complex sist primarily of an increase in the explosives storage capability the construction of a new rail spur linking the Explosives Storage Loading Area with the rest of the complex. Details concerning these other changes are discussed in the following section; the letters er to areas annotated on Figure 6:	
25X1D 25X1D	a. The fabrication building (Annotation 6, Figure 4) is complete as of; the adjacent large building under construction (Annotation 3, Figure 4) inis still incomplete	
25X1D 25X1D	b. Four storage buildings, adjacent to the rail spur, have been completed as of a fifth probable storage building has been under construction since	
	c. A road, probably serving the construction of the storage buildings described above, was constructed between the rail spur and the buildings	
25X1D	d. A new rail spur branching off the existing rail spur and leading to the Explosives Storage and Loading Area has apparently been completed as of a probable small turning wye off of this rail spur appears to be under construction	•
	e. A large transloading building at the end of the new rail spur has been completed; in addition, a road around the transloading building has been added	
■ 25X1D	f. Four explosives storage buildings were constructed between	
25X1D	g. Three new, road served magazines have been constructed here; one prior to and a fourth magazine was under construction as of	X1D
	h. Rectangular earth scarring near the road in this area indicates that new explosives storage facilities will probably be added here	
25X1D	i. Two small support/storage structures have been added since	
25X1D	j. Two small storage buildings have been revetted since indicating that they will probably be used for explosives storage	
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25X1E	k. The inner security wall has been extended and completed since	
25X1D	4. Some level of production activity in the Factory Area of the complex is indicated by smoke over one of the forge/foundry buildings and the presence of railcars and trucks in this area on photography of In addition, changes in the configuration of the coal pile in Annotation 8, Figure 4, and variations in the discoloration of the roofs of buildings can be seen throughout the period of photographic coverage.	
	There are no definite indicators of activity in the Explosives Processing Area. The construction of the new rail spur and the increase in the explosives storage capability in this and the Explosives Storage and Loading Area, however, would seem to indicate that some explosives processing is taking place.	•
	B. Hsiangt'an Probable Plant Number 627	
	1. This plant is located approximately one nautical mile to the northwest of the center of Hsiangt'an. It is road and rail served, secured, measures approximately 2,000 feet by 3,700 feet, and covers an area of approximately 7,400,000 square feet. Principal facilities at this plant consist of a probable foundry, a number of fabrication and industrial buildings, and a probable weapons test range with associated revetted storage. The latter facility is the only apparent feature which indicates that this plant may be involved in the armaments/ammunition industry.	
25X1D	2. Identification and analysis of the facilities present at the plant follows in section a; construction activity and changes at the plant during the period are discussed in section b.	
	a. The numbers on Figure 8 correspond to the following discussion of facilities present: $. \\$	
25X1l 25X1	no change can be observed on photography of I	25X1D

4	•				
		4	•		
			1		
•	(5)	Rail served fabrication	building	_h_ a.c.	OEV4D
	(6)	Probable foundry, rail	served; on photogra	pny or	25X1D
25X1D			steam can be seen	adjacent to	
23/(1)		the large stack			
	(7)	Five fabrication building Small building with a h	ngs ish bor sostion so	net mieted since	• •
	(8)	Small building with a n	ign bay section, co	nstructed since	
25X1D	(-)		consisting of	n twomah	
	(9)	Probable weapons test rapproximately 350 feet	ange consisting of	a crench	
		at the south end and a	Tous at the north	end	
	. (20)		revetted storage by	ildings	
	(10)	probably as ciated wit	h the propable wear	ons test range	
	. /221		net motion	OTTO OCDO TOTIBO	
	(11)		rly stage of constr	nction:	
051/45	· (12)	work was begun here aft	er Consul	,	
25X1D		WOLK WAS DEBUI HOLE ALO	·		•
	h. 1	Relatively little constru	ction activity or o	hanges have	
	occurred	at this plant during the	period	_	25X1E
•	No further	r construction has taken	place since	on the	25X1[
	huildings	annotated 4 and 12 on Fi	gure 8. The buildi	ng annotated	20// 11
	11 on the	same figure appears to b	e in a mòre advance	ed stage of	05745
1	construct		*		25X1D
	3. The <u>p</u>	resence of steam over the	probable foundry	ouilding (Anno-	
25X1D	tation 6) in [slight changes	in the configuration	on of the coar	
20%(10)			increasing signs (or armining	
ļ	on the roofs o	f the fabrication building	ig (Annotation)) ar	ig the Tarke	
	fabrication bu	ilding directly west of A	nnotation 5 are the	e ourn apparent	
	indicators of	production activity.			
j		easurements in both secti	on A and B have her	en made by the	
	4. All m	easurements in both secti ject analyst. They shoul	se herehismon ad h	approximate	•_
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